General

Guideline Title

Castration-resistant prostate cancer: AUA guideline.

Bibliographic Source(s)

waiting for update

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Cookson MS, Roth BJ, Dahm P, Engstrom C, Freedland SJ, Hussain M, Lin DW, Lowrance WT, Murad MH, Oh WK, Penson DF, Kibel AS. Castration-resistant prostate cancer: AUA guideline. Linthicum (MD): American Urological Association Education and Research, Inc.; 2014 Apr. 23 p. [78 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

Definitions for the body of evidence strength (Grade A, B, or C), the strength of the recommendations (Standard, Recommendation, Option), and for statements labeled as Clinical Principle and Expert Opinion are provided at the end of the "Major Recommendations" field.

Index Patient 1

Asymptomatic Non-Metastatic Castration-Resistant Prostate Cancer (CRPC)

1. Clinicians should recommend observation with continued androgen deprivation to patients with non-metastatic CRPC. (*Recommendation; Evidence Level Grade C*)
2. Clinicians may offer treatment with first-generation anti-androgens (flutamide, bicalutamide, and nilutamide) or first-generation androgen synthesis inhibitors (ketoconazole + steroid) to select patients with non-metastatic CRPC who are unwilling to accept observation. (*Option; Evidence Level Grade C*)
3. Clinicians should not offer systemic chemotherapy or immunotherapy to patients with non-metastatic CRPC outside the context of a clinical trial. (*Recommendation; Evidence Level Grade C*)

Index Patient 2

Asymptomatic or Minimally Symptomatic, Metastatic CRPC (mCRPC) Without Prior Docetaxel Chemotherapy

4. Clinicians should offer abiraterone + prednisone, enzalutamide, docetaxel, or sipuleucel-T to patients with asymptomatic or minimally symptomatic mCRPC with good performance status and no prior docetaxel chemotherapy. (*Standard; Evidence Level Grade A* [abiraterone + prednisone and enzalutamide]/ *B* [docetaxel and sipuleucel-T])
5. Clinicians may offer first-generation anti-androgen therapy, ketoconazole + steroid or observation to patients with asymptomatic or minimally symptomatic mCRPC with good performance status and no prior docetaxel chemotherapy who do not want or cannot have one of the standard therapies. (*Option; Evidence Level Grade C*)

Index Patient 3

Symptomatic, mCRPC with Good Performance Status and No Prior Docetaxel Chemotherapy

6. Clinicians should offer abiraterone + prednisone, enzalutamide or docetaxel to patients with symptomatic, mCRPC with good performance status and no prior docetaxel chemotherapy. (*Standard; Evidence Level Grade A* [abiraterone + prednisone and enzalutamide]/ *B* [docetaxel])
7. Clinicians may offer ketoconazole + steroid, mitoxantrone or radionuclide therapy to patients with symptomatic, mCRPC with good performance status and no prior docetaxel chemotherapy who do not want or cannot have one of the standard therapies. (*Option; Evidence Level Grade C* [ketoconazole]/ *B* [mitoxantrone]/ *C* [radionuclide therapy])
8. Clinicians should offer radium-223 to patients with symptoms from bony metastases from mCRPC with good performance status and no prior docetaxel chemotherapy and without known visceral disease. (*Standard; Evidence Level Grade B*)
9. Clinicians should not offer treatment with either estramustine or sipuleucel-T to patients with symptomatic, mCRPC with good performance status and no prior docetaxel chemotherapy. (*Recommendation; Evidence Level Grade C*)

Index Patient 4

Symptomatic, mCRPC With Poor Performance Status and No Prior Docetaxel Chemotherapy

10. Clinicians may offer treatment with abiraterone + prednisone or enzalutamide to patients with symptomatic, mCRPC with poor performance status and no prior docetaxel chemotherapy. (*Option; Evidence Level Grade C*)
11. Clinicians may offer treatment with ketoconazole + steroid or radionuclide therapy to patients with symptomatic, mCRPC with poor performance status and no prior docetaxel chemotherapy who are unable or unwilling to receive abiraterone + prednisone or enzalutamide. (*Option; Evidence Level Grade C*)
12. Clinicians may offer docetaxel or mitoxantrone chemotherapy to patients with symptomatic, mCRPC with poor performance status and no prior docetaxel chemotherapy in select cases, specifically when the performance status is directly related to the cancer. (*Expert Opinion*)
13. Clinicians may offer radium-223 to patients with symptoms from bony metastases from mCRPC with poor performance status and no prior docetaxel chemotherapy and without known visceral disease in select cases, specifically when the performance status is directly related to symptoms related to bone metastases. (*Expert Opinion*)
14. Clinicians should not offer sipuleucel-T to patients with symptomatic, mCRPC with poor performance status and no prior docetaxel chemotherapy. (*Recommendation; Evidence Level Grade C*)

Index Patient 5

Symptomatic, mCRPC With Good Performance Status and Prior Docetaxel Chemotherapy

15. Clinicians should offer treatment with abiraterone + prednisone, cabazitaxel or enzalutamide to patients with mCRPC with good performance status who received prior docetaxel chemotherapy. If the patient received abiraterone + prednisone prior to docetaxel chemotherapy, they should be offered cabazitaxel or enzalutamide. (*Standard; Evidence Level Grade A* [abiraterone]/ *B* [cabazitaxel]/ *A* [enzalutamide])
16. Clinicians may offer ketoconazole + steroid to patients with mCRPC with good performance status who received prior docetaxel if abiraterone + prednisone, cabazitaxel or enzalutamide is unavailable. (*Option; Evidence Level Grade C*)
17. Clinicians may offer retreatment with docetaxel to patients with mCRPC with good performance status who were benefiting at the time of discontinuation (due to reversible side effects) of docetaxel chemotherapy. (*Option; Evidence Level Grade C*)
18. Clinicians should offer radium-223 to patients with symptoms from bony metastases from mCRPC with good performance status who received prior docetaxel chemotherapy and without known visceral disease. (*Standard; Evidence Level Grade B*)

Index Patient 6

Symptomatic, mCRPC With Poor Performance Status and Prior Docetaxel Chemotherapy

19. Clinicians should offer palliative care to patients with mCRPC with poor performance status who received prior docetaxel chemotherapy. Alternatively, for selected patients, clinicians may offer treatment with abiraterone + prednisone, enzalutamide, ketoconazole + steroid or radionuclide therapy. (*Expert Opinion*)
20. Clinicians should not offer systemic chemotherapy or immunotherapy to patients with mCRPC with poor performance status who received prior docetaxel chemotherapy. (*Expert Opinion*)

Guideline Statements on Bone Health (Not Specific to Any One Index Patient)

21. Clinicians should offer preventative treatment (e.g., supplemental calcium, vitamin D) for fractures and skeletal-related events to CRPC patients. (*Recommendation; Evidence Level Grade C*)
22. Clinicians may choose either denosumab or zoledronic acid when selecting a preventative treatment for skeletal related events for mCRPC patients with bony metastases. (*Option; Evidence Level Grade C*)

Definitions

Body of Evidence Strength

Grade A: Well-conducted and highly-generalizable randomized controlled trials (RCTs) or exceptionally strong observational studies with consistent findings

Grade B: RCTs with some weaknesses of procedure or generalizability or generally strong observational studies with consistent findings

Grade C: Observational studies that are inconsistent, have small sample sizes, or have other problems that potentially confound interpretation of data

Note: By definition, Grade A evidence is evidence about which the Panel has a high level of certainty, Grade B evidence is evidence about which the Panel has a moderate level of certainty, and Grade C evidence is evidence about which the Panel has a low level of certainty.

American Urological Association (AUA) Nomenclature Linking Statement Type to Evidence Strength

Standard: Directive statement that an action should (benefits outweigh risks/burdens) or should not (risks/burdens outweigh benefits) be taken based on Grade A or B evidence

Recommendation: Directive statement that an action should (benefits outweigh risks/burdens) or should not (risks/burdens outweigh benefits) be taken based on Grade C evidence

Option: Non-directive statement that leaves the decision regarding an action up to the individual clinician and patient because the balance between benefits and risks/burdens appears equal or appears uncertain based on Grade A, B, or C evidence

Clinical Principle: A statement about a component of clinical care that is widely agreed upon by urologists or other clinicians for which there may or may not be evidence in the medical literature

Expert Opinion: A statement, achieved by consensus of the Panel, that is based on members' clinical training, experience, knowledge, and judgment for which there is no evidence

Clinical Algorithm(s)

An algorithm titled "Staging/H&P/Imaging Algorithm" is available from the American Urological Association Education and Research, Inc. (AUA) Web site.

Scope

Disease/Condition(s)

Castration-resistant prostate cancer (CRPC)

Guideline Category

Management

Risk Assessment

Treatment

Clinical Specialty

Internal Medicine

Oncology

Radiation Oncology

Radiology

Urology

Intended Users

Advanced Practice Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To provide a rational basis for treatment of patients with castration-resistant prostate cancer (CRPC), based on currently available published data

Target Population

Patients with castration-resistant prostate cancer (CRPC)

Interventions and Practices Considered

1. Observation with continued androgen deprivation
2. First-generation anti-androgens (flutamide, bicalutamide, and nilutamide)
3. First-generation androgen synthesis inhibitors (ketoconazole + steroid)
4. Abiraterone + prednisone
5. Enzalutamide
6. Docetaxel
7. Sipuleucel-T
8. Mitoxantrone
9. Radionuclide therapy (radium-223, samarium-153, strontium-89)
10. Cabazitaxel
11. Retreatment with docetaxel
12. Palliative care
13. Preventative treatment (supplemental calcium and vitamin D, denosumab, zoledronic acid)

Major Outcomes Considered

- Survival including:
  - Overall (OS)
  - Progression-free (PFS)
  - Metastasis-free
  - Prostate-specific antigen progression-free (PSA PFS)
  - Pain-free
- PSA decline
- Measurable disease response
- Adverse events/side-effects of treatment
- Quality of life (QOL)
- Skeletal-related events (SREs)
- Pain response

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Process for Initial Literature Selection

Consistent with the American Urological Association Education and Research, Inc. (AUA) published guideline methodology framework, the process started by conducting a comprehensive systematic review. The AUA commissioned an independent group to conduct a systematic review and meta-analysis of the published literature on various therapies for castration-resistant prostate cancer (CRPC). The protocol of the systematic review was developed *a priori* by the methodology team in conjunction with the expert panel. The search strategy was developed and executed by reference librarians and methodologists and spanned across multiple databases including Ovid Medline In-Process & Other Non-Indexed Citations, Ovid MEDLINE, Ovid EMBASE, Ovid Cochrane Database of Systematic Reviews, Ovid Cochrane Central Register of Controlled Trials and Scopus. The evidence report was limited to English-language, peer-reviewed literature published between January 1996 and February 2013. Controlled vocabulary supplemented with keywords was used to search for the relevant concepts of prostate cancer and castration resistance (biochemical recurrence with a rising prostate-specific antigen (PSA) and/or progression of disease by radiographic criteria despite a castrate testosterone level). An expert panel manually identified additional references to supplement the electronic search, which were required to meet the same criteria as the previously used studies.

The search strategy focused on commonly used as well as experimental therapies including systemic chemotherapy (estramustine, mitoxantrone, docetaxel, cabazitaxel), immunotherapy (sipuleucel-T) and vaccine therapy, agents targeting the androgen signaling pathway (abiraterone, ketoconazole, corticosteroids, antiandrogens), radiotherapy and radiopharmaceuticals (Strontium-89 [Metastron®], Samarium-153 [Quadramet®]), antiandrogen withdrawal, bone targeted therapies (zoledronic acid, denosumab), enzalutamide (androgen receptor inhibitor), palliative care and experimental therapy, (TAK700 [CYP-17 inhibitor], cabozantanib [cMET/VEGFR inhibitor], Radium-223 [Alpharadin®]).

The outcomes of interest were *a priori* determined by the panel based on their respective importance to patients, recognizing that some of these endpoints are surrogates for the patients and included overall survival (OS), progression-free survival (PFS), metastasis-free survival, PSA PFS, PSA decline, measurable disease response, adverse events/side-effects of treatment, quality of life (QOL), skeletal-related events (SREs), pain-free survival, and pain response.

The methodology team independently rated the methodological quality of the studies and provided an overall judgment of the whole body of evidence based on confidence in the available estimates of effect.

The methodology team summarized the data with explicit description of study characteristics, methodological quality, main findings and the quality

of the evidence (confidence in the estimates). The methodology team attended panel meetings and facilitated incorporation of the evidence into the guideline.

Guideline Amendment

In April 2014 and March 2015, the CRPC guideline was updated through the AUA amendment process in which newly published literature is reviewed and integrated into previously published guidelines in an effort to maintain currency. The amendments allowed for the incorporation of additional literature released since the initial publication of this guideline in 2013. Comprehensive searches of several databases from February 2013 to February 2014 (2014 amendment) and February 2014 to February 2015 (2015 amendment), English language, were conducted. The search strategy was designed and conducted by an experienced librarian with input from the study's principle investigator. Controlled vocabulary supplemented with keywords was used to search for studies on therapy for CRPC.

Number of Source Documents

The initial systematic review included 303 eligible studies that addressed the pre-identified questions of interest.

Guideline Amendment

The 2014 search yielded 998 references, of which 662 were excluded after duplicate abstract and title review. Full text was retrieved for the 336 included studies. Eventually, 37 studies provided relevant data on the specific treatment modalities for castration-resistant prostate cancer (CRPC). The 2015 search yielded 1,150 references, of which 1,090 were excluded after duplicate abstract and title review. Full texts were retrieved for 60 included studies. Eventually, 10 studies (published in 14 manuscripts) provided relevant data on the specific treatment modalities for CRPC.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Body of Evidence Strength

Grade A: Well-conducted and highly-generalizable randomized controlled trials (RCTs) or exceptionally strong observational studies with consistent findings

Grade B: RCTs with some weaknesses of procedure or generalizability or generally strong observational studies with consistent findings

Grade C: Observational studies that are inconsistent, have small sample sizes, or have other problems that potentially confound interpretation of data

Note: By definition, Grade A evidence is evidence about which the Panel has a high level of certainty, Grade B evidence is evidence about which the Panel has a moderate level of certainty, and Grade C evidence is evidence about which the Panel has a low level of certainty.

Methods Used to Analyze the Evidence

Meta-Analysis of Randomized Controlled Trials

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

The methodology team independently rated the methodological quality of the studies and provided an overall judgment of the whole body of evidence based on confidence in the available estimates of effect.

The methodology team summarized the data with explicit description of study characteristics, methodological quality, main findings and the quality of the evidence (confidence in the estimates). The methodology team attended panel meetings and facilitated incorporation of the evidence into the guideline.

Quality of Individual Studies and Determination of Evidence Strength

The systematic review included 303 eligible studies that addressed the pre-identified questions of interest. A large body of evidence evaluated established chemotherapy agents such as docetaxel (19 randomized controlled trials [RCTs]), estramustine (5 RCTs) and mitoxantrone (5 RCTs). Randomized evidence was also available for various immunotherapies (8 RCTs), therapies targeting the androgen signaling pathway (12 RCTs), radiotherapy and radiopharmaceuticals (4 RCTs) and bone-targeting therapies (6 RCTs). The quality of these trials was acceptable overall and ranged from moderate to low risk of bias. All the remaining studies were otherwise non-randomized (observational) and considered to be at high risk of bias.

The quality of the evidence (confidence in the estimates) was limited in many studies by indirectness. Indirectness occurs when studies use surrogate endpoints that depend on laboratory or radiographic measurements (prostate specific antigen [PSA] free survival, PSA decline or progression-free survival [PFS], based on imaging). These outcomes usually are surrogates for other important patient outcomes more essential for decision making, such as mortality, pain and quality of life (QOL). Imprecision (wide confidence intervals due to small number of events) was also common in most castration-resistant prostate cancer (CRPC) trials and can lower the confidence in the provided estimates.

Limitations of the Literature

The systematic review and guideline process identified clear gaps in the available evidence base. None of the therapies identified in this review were curative or resulted in long term remission. Therefore, primary research on new agents is clearly needed for this important and common condition. Future trials should also use and incorporate patient reported outcomes, such as QOL and pain control. The current evidence base suffers from imprecision that can be overcome by multi-site RCT collaboration or prospective (pre-planned) meta-analyses.

Methods Used to Formulate the Recommendations

Expert Consensus

Expert Consensus (Delphi)

Description of Methods Used to Formulate the Recommendations

This document was written by the Castration-Resistant Prostate Cancer Guidelines Panel of the American Urological Association Education and Research, Inc. (AUA), which was created in 2011. The Practice Guidelines Committee (PGC) of the AUA selected the committee chair. Panel members were selected by the chair. Membership of the committee included urologists, and oncologists and other clinicians with specific expertise on this disorder. The mission of the committee was to develop recommendations that are analysis-based or consensus-based, depending on Panel processes and available data, for optimal clinical practices in the treatment of castration-resistant prostate cancer (CRPC). All panel members have specific expertise with regard to the guideline subject to include both urologists and medical oncologists.

To assist in clinical decision-making, six index patients were developed representing the most common clinical scenarios of CRPC that are encountered in clinical practice. These index patients were created based on the presence or absence of metastatic disease, the degree of symptoms, the patients' performance status (as defined by the Eastern Cooperative Oncology Group [ECOG] scale) and the prior treatment with docetaxel-based chemotherapy.

1. Asymptomatic non-metastatic CRPC
2. Asymptomatic or minimally-symptomatic, metastatic CRPC (mCRPC) without prior docetaxel chemotherapy
3. Symptomatic, mCRPC with good performance status and no prior docetaxel chemotherapy
4. Symptomatic, mCRPC with poor performance status and no prior docetaxel chemotherapy
5. Symptomatic, mCRPC with good performance status and prior docetaxel chemotherapy
6. Symptomatic, mCRPC with poor performance status and prior docetaxel chemotherapy

Once index patients were developed, the literature was reviewed using the protocol described in the "Methodology" section of the original guideline document.

AUA Nomenclature: Linking Statement Type to Evidence Strength

The AUA nomenclature system explicitly links statement type to body of evidence strength and the Panel's judgment regarding the balance between benefits and risks/burdens (see the "Rating Scheme for the Strength of the Recommendations" field).

For some clinical issues, there was little or no evidence from which to construct evidence-based statements. Where gaps in the evidence existed, the Panel provides guidance in the form of *Clinical Principles* or *Expert Opinions* with consensus achieved using a modified Delphi technique if differences of opinion existed among Panel members.

Rating Scheme for the Strength of the Recommendations

American Urological Association (AUA) Nomenclature Linking Statement Type to Evidence Strength

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Expert Opinion: A statement, achieved by consensus of the Panel, that is based on members' clinical training, experience, knowledge, and judgment for which there is no evidence

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Peer Review

Description of Method of Guideline Validation

The American Urological Association Education and Research, Inc. (AUA) conducted an extensive peer review process. The initial draft of this Guideline was distributed to 56 peer reviewers of varying backgrounds; 30 responded with comments. The panel reviewed and discussed all submitted comments and revised the draft as needed. Once finalized, the Guideline was submitted for approval to the Practice Guidelines Committee (PGC) and the Science & Quality (S&Q) Council. It was then submitted to the AUA Board of Directors for final approval. It was approved by the AUA Board of Directors in April 2015.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

For some clinical issues, there was little or no evidence from which to construct evidence-based statements. Where gaps in the evidence existed, the Panel provides guidance in the form of *Clinical Principles* or *Expert Opinions* with consensus.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Potential Benefits

Appropriate management of castration-resistant prostate cancer (CRPC)

Potential Harms

- Though anti-androgens (flutamide, bicalutamide and nilutamide) are commonly used, these agents can be associated with side effects including gastrointestinal upset and liver toxicity.
- Ketoconazole can be associated with nausea and hepatotoxicity and must be given with replacement steroids.
- Abiraterone is associated with expected increases in mineralocorticoids upstream of cytochrome P (CYP)17A, accounting for the treatment-related side effects, such as hypertension, hypokalemia, edema, and fatigue that respond to low dose glucocorticoids. Use of abiraterone in combination with low-dose prednisone is required to prevent these treatment-related increases in adrenocorticotropic hormone (ACTH) and attendant side effects.
- Prolonged, continuous therapy with docetaxel (for metastatic castration-resistant prostate cancer [mCRPC]) can result in cumulative, progressive, non-hematologic toxicity (e.g., neuropathy).
- Possible side effects of radionuclide therapy include bone marrow suppression, anemia, thrombocytopenia. Those patients who have previously received chemotherapy are at greater risk for side effects compared to chemotherapy-naive patients.
- In one study, cabazitaxel resulted in more-clinically-significant diarrhea, but its primary toxicity is hematologic with 82% of patients developing grade 3 or 4 neutropenia, 8% developing febrile neutropenia and 5% resulting in death.
- The most common adverse events associated with enzalutamide treatment included fatigue and hypertension. Toxicity from enzalutamide was related primarily to fatigue, diarrhea and hot flashes, although 5 of 800 patients receiving the drug developed seizure activity.
- A not-uncommon side effect of both zoledronic acid and denosumab is hypocalcemia. Denosumab was associated with significant side-effects, including osteonecrosis of the jaw. The toxicity of zoledronic acid includes a small incidence of osteonecrosis of the jaw, hypocalcemia and nephrotoxicity.
- Calcium supplementation may not be innocuous, as epidemiologic studies have suggested a relationship between calcium intake and the risk of subsequent cardiovascular disease and prostate cancer risk including fatal prostate cancer, though conflicting data exist.

Qualifying Statements

Qualifying Statements

- The goal of this guideline is to provide evidence based recommendations for the treatment of castration-resistance prostate cancer (CRPC). Given that this is a rapidly evolving field, this guideline should be used in conjunction with recent systematic literature reviews and an understanding of the individual patient's treatment goals. In all cases, the patient's preferences and personal goals should be considered when choosing therapy. Although the guideline discusses castration-resistant disease, the guideline authors support the standard of care to maintain castrate testosterone levels even in the face of castration-resistant disease.
- While these guidelines do not necessarily establish the standard of care, the American Urological Association Education and Research, Inc. (AUA) seeks to recommend and to encourage compliance by practitioners with current best practices related to the condition being treated. As medical knowledge expands and technology advances, the guidelines will change. Today these evidence-based guidelines statements represent not absolute mandates but provisional proposals for treatment under the specific conditions described in each document. For all these reasons, the guidelines do not pre-empt physician judgment in individual cases.
- Treating physicians must take into account variations in resources, and patient tolerances, needs, and preferences. Conformance with any clinical guideline does not guarantee a successful outcome. The guideline text may include information or recommendations about certain drug uses ("off label") that are not approved by the U.S. Food and Drug Administration (FDA), or about medications or substances not subject to the FDA approval process. The AUA urges strict compliance with all government regulations and protocols for prescription and use of these substances. The physician is encouraged to carefully follow all available prescribing information about indications, contraindications, precautions and warnings. These guidelines and best practice statements are not intended to provide legal advice about use and misuse of these substances.
- Although guidelines are intended to encourage best practices and potentially encompass available technologies with sufficient data as of close of the literature review, they are necessarily time-limited. Guidelines cannot include evaluation of all data on emerging technologies or management, including those that are FDA-approved, which may immediately come to represent accepted clinical practices. For this reason, the AUA does not regard technologies or management which are too new to be addressed by this guideline as necessarily experimental or investigational.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Clinical Algorithm

Mobile Device Resources

Patient Resources

Resources

Staff Training/Competency Material

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

End of Life Care

Getting Better

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

waiting for update

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2013 Apr (revised 2015 Apr)

Guideline Developer(s)

American Urological Association Education and Research, Inc. - Medical Specialty Society

Source(s) of Funding

Funding of the committee was provided by the American Urological Association Education and Research, Inc. (AUA). Committee members received no remuneration for their work.

Guideline Committee

Castration-resistant Prostate Cancer Guidelines Panel

Composition of Group That Authored the Guideline

Panel Members: Michael S. Cookson, MD (*Chair*), Vanderbilt University, Nashville, TN; Adam S. Kibel, MD (*Vice Chair*), Harvard Program in Urology (Longwood), Boston, MA; Philipp Dahm, MD, MHSc, University of Florida, Gainesville, FL; Christine Engstrom, PhD, CRNP, AOCN, Department of Veterans Affairs, Washington, DC; Stephen J. Freedland, MD, Duke University, Durham, NC; Maha Hussain, MD, FACP, University of Michigan Comprehensive Cancer Center, Ann Arbor, MI; Daniel W. Lin, MD, University of Washington, Seattle, WA; William T. Lowrance, MD, Huntsman Cancer Hospital, Salt Lake City, UT; William K. Oh, MD, Mount Sinai School of Medicine, New York, NY; David F. Penson, MD, Vanderbilt University, Nashville, TN; Bruce J. Roth, MD, Washington University in St. Louis School of Medicine, St. Louis, MO

Financial Disclosures/Conflicts of Interest

Conflict of Interest (COI) Disclosures

All panel members completed COI disclosures. Relationships that have expired (more than one year old) since the panel's initial meeting are listed. Those marked with (C) indicate that compensation was received; relationships designated by (U) indicate no compensation was received.

Consultant/Advisor: Michael S. Cookson, Spectrum (C), Myriad (C), US HIFU(C), Endo (C), GE Healthcare (C), Covidien (C); Stephen J. Freedland, Amgen (C), Medivation (C), Bayer (C), Mitomics (C), Astellas (C), AstraZeneca (C), Dendreon (C), Janssen (C), GlaxoSmithKline (C) (Expired); Maha Hussain, Merck (C), Lilly (C), Exelexis (C), Johnson & Johnson (C); Adam S. Kibel, Dendreon (C), Myriad Genetics (C), National Cancer Institute (C), Sanofi-Aventis (C), Spectrum (C); Daniel W. Lin, Caris Life Sciences (U), Dendreon Corporation (C), GenProbe (U), Myriad Genetics (C), Pfizer (C); William T. Lowrance, Myriad Genetics (C), Dendreon (C); William K. Oh, Active Biotech (C), Amgen (C), Astellas (C), Bayer (C), Bellicum Pharmaceuticals (C), Centocor Ortho Biotech (C), Dendreon (C), Genentech (U), Imedex (C), Janssen (C), Medivation (C), Millennium (U), Pfizer (C), Sanofi-Aventis (C)

Investigator: William K. Oh, Genentech (U) (Expired), Millennium (C) (Expired)

Meeting Participant or Lecturer: Michael S. Cookson, Photocure (C); Stephen J. Freedland, AstraZeneca, (C), Dendreon, (C), Amgen (C) (Expired), AstraZeneca (C) (Expired), Centocor Ortho Biotech (C) (Expired); Maha Hussain, Ferring (C), AstraZeneca (C); Adam S. Kibel, Dendreon (C), Sanofi-Aventis (C) (Expired); Daniel W. Lin, Dendreon Corporation (C), Myriad (C); William K. Oh, Sanofi-Aventis (C) (Expired)

Scientific Study or Trial: Michael S. Cookson, Endo (C), GE Healthcare (C), Covidien (C); Stephen J. Freedland, GlaxoSmithKline (C) (Expired), Dendreon (C) (Expired), Janssen (C); Maha Hussain, Imclone (U), Celgene (U), Millenium (U), Abbott (U), EMD Serono (U), Genta (U), Abraxis, (U) (Expired); Adam S. Kibel, Sanofi-Aventis (C); Daniel W. Lin, Department of Defense (C), GenProbe (U), National Institutes of Health/National Cancer Institute (NIH/NCI) (C), Sanofi-Aventis (C), Veteran's Affairs (U); William K. Oh, Pfizer (C) (Expired); Bruce J. Roth, Oncogenix (U), Exelixis (U), Medivation (U)

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Cookson MS, Roth BJ, Dahm P, Engstrom C, Freedland SJ, Hussain M, Lin DW, Lowrance WT, Murad MH, Oh WK, Penson DF, Kibel AS. Castration-resistant prostate cancer: AUA guideline. Linthicum (MD): American Urological Association Education and Research, Inc.; 2014 Apr. 23 p. [78 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Electronic copies: Available from the American Urological Association Education and Research, Inc. (AUA) Web site .

Availability of Companion Documents

The following are available:

- Castration-resistant prostate cancer: AUA guideline. Appendix A: ECOG performance status. 2015. Electronic copies: Available from the American Urological Association Education and Research, Inc. (AUA) Web site .
- A continuing medical education (CME) activity and panel discussion Web cast are also available from the AUA Web site .
- The AUA Guidelines-At-A-Glance mobile app is available for download from the AUA Web site .

Patient Resources

The following is available:

- Know Your Stats about prostate cancer. Get the facts. Urology Care Foundation, Inc. Electronic copies: Available from the Know Your Stats Web site .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

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